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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/578,678

12/08/2006

Ulrich Meier

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EXAMINER

HEWITT, JAMES M

ART UNIT

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3679

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/578,678	<b>Applicant(s)</b> MEIER ET AL.	
	<b>Examiner</b> JAMES M. HEWITT	<b>Art Unit</b> 3679	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 February 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 8-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 8-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 February 2008 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Amendment***

The amendment to the specification filed on 5/9/06 does not comply with the requirements of 37 CFR 1.121(b). Amendments to the specification filed on or after July 30, 2003 must comply with 37 CFR 1.121 which states:

(b) Specification . Amendments to the specification, other than the claims, computer listings (§ 1.96) and sequence listings (§ 1.825), must be made by adding, deleting or replacing a paragraph, by replacing a section, or by a substitute specification, in the manner specified in this section.

(1) Amendment to delete, replace, or add a paragraph . Amendments to the specification, including amendment to a section heading or the title of the invention which are considered for amendment purposes to be an amendment of a paragraph, must be made by submitting:

(i) An instruction, which unambiguously identifies the location, to delete one or more paragraphs of the specification, replace a paragraph with one or more replacement paragraphs, or add one or more paragraphs;

(ii) The full text of any replacement paragraph with markings to show all the changes relative to the previous version of the paragraph. The text of any added subject matter must be shown by underlining the added text. The text of any deleted matter must be shown by strike-through except that double brackets placed before and after the deleted characters may be used to show deletion of five or fewer consecutive characters. The text of any deleted subject matter must be shown by being placed within double brackets if strikethrough cannot be easily perceived;

(iii) The full text of any added paragraphs without any underlining; and

(iv) The text of a paragraph to be deleted must not be presented with strike-through or placed within double brackets. The instruction to delete may identify a paragraph by its paragraph number or include a few words from the beginning, and end, of the paragraph, if needed for paragraph identification purposes.

(2) Amendment by replacement section . If the sections of the specification contain section headings as provided in § 1.77(b), § 1.154(b), or § 1.163(c), amendments to the specification, other than the claims, may be made by submitting:

(i) A reference to the section heading along with an instruction, which unambiguously identifies the location, to delete that section of the specification and to replace such deleted section with a replacement

section; and;

(ii) A replacement section with markings to show all changes relative to the previous version of the section. The text of any added subject matter must be shown by underlining the added text. The text of any deleted matter must be shown by strike-through except that double brackets placed before and after the deleted characters may be used to show deletion of five or fewer consecutive characters. The text of any deleted subject matter must be shown by being placed within double brackets if strike-through cannot be easily perceived.

(3) Amendment by substitute specification . The specification, other than the claims, may also be amended by submitting:

- (i) An instruction to replace the specification; and
- (ii) A substitute specification in compliance with §§ 1.125(b) and (c).

From the first sentence in the above rule, amendments to the specification must be made by adding, deleting or replacing a paragraph, by replacing a section or by a substitute specification, in the manner specified in this section. Since the cover page indicates that the specification is being amended, what was submitted was an amendment and not a substitute specification. Therefore, Applicant should submit replacement paragraphs and/or replacement section in accord with sections (1) and (2) above.

### ***Drawings***

The drawings filed 2/1/08 are objected to because the cross-hatching of the O-ring (22) in Figs. 1 and 3 is indiscernible.

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the position of the locking element and the engagement section and the strength of the compression spring are such that in an uncoupled state of the coupling, the compression spring

pushes the nipple out of the sleeve to such an extent that the engagement section is outside the sleeve must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

Claims 12-13 are objected to because of the following informalities:

In claim 12, line 4, "anouter" is incorrect.

In claim 12, line 5, "the inner one" lacks proper antecedent basis.

Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8 and 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yeoman (US 4,800,925).

With respect to claim 8, Yeoman discloses a rapid coupling comprising a sleeve (10) having an inner stop and an insertion end; a pipe nipple (12) having an insertion end adapted to be inserted into the sleeve's insertion end and having an outer surface formed with an engagement section; a locking element (46) provided in the sleeve at the insertion end of the sleeve, the locking element, upon engagement with the engagement section, retaining the nipple in the sleeve to constitute a coupled state of the coupling; a compression spring (86) disposed between the inner stop of the sleeve and the insertion end of the nipple. It is unclear whether the position of the locking element and the engagement section and the strength of the compression spring are such that in an uncoupled state of the coupling, the compression spring pushes the nipple out of the sleeve to such an extent that the engagement section is outside the sleeve. Such is dependent upon such parameters as the elastic force of the compression spring, the weight of the pipe nipple, the frictional force between the pipe

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nipple and socket, etc. Accordingly, it would have been an obvious matter of engineering skill and design to form the coupling such that the position of the locking element and the engagement section and the strength of the compression spring are such that in an uncoupled state of the coupling, the compression spring pushes the nipple out of the sleeve to such an extent that the engagement section is outside the sleeve in order to for example, facilitate disassembly.

Note that it has generally been recognized that the optimization of proportions in a prior art device is a design consideration within the skill of the art. In re Reese, 290 F.2d 839, 129 USPQ 402 (CCPA 1961).

Furthermore, the applicant has failed to demonstrate criticality by any showing of unexpected result derived from forming the coupling such that the position of the locking element and the engagement section and the strength of the compression spring are such that compression spring pushes the nipple out of the sleeve to such an extent that the engagement section is outside the sleeve. Wherein a specific limitation has no criticality, case law can be relied upon as the sole rationale in an obviousness rejection. See MPEP 2144.04. Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to form Yeoman's coupling such that the position of the locking element and the engagement section and the strength of the compression spring are such that in an uncoupled state of the coupling, the compression spring pushes the nipple out of the sleeve to such an extent that the engagement section is outside the sleeve and further since the limitation has no criticality and has thus been established by the case law cited above to be an obvious

design consideration within the skill of the art. “[T]he results of ordinary innovation are not the subject of exclusive rights under the patent laws. Were it otherwise patents might stifle, rather than promote, the progress of useful arts. See U.S. Const., Art. I, section 8, cl.8.” In re KSR International Co. v. Teleflex Inc., 82 USPQ2d 1385 (U.S. 2007).

With respect to claim 12, wherein the engagement section of the nipple is formed as a projection (e.g. formed to the left of ring 46 in Fig. 1), and a recess (end bore 36 and openings 56 for retaining ring 46) having two successive regions is provided in the sleeve, the diameter of the outer one of the regions adjoining said insertion end of the corresponding to the outer diameter of the projection. It is unclear as to whether the diameter of the inner one of the regions is at least equal to the outer diameter of the projection plus twice the radial thickness of the locking element. Nevertheless, it would have been an obvious matter of design choice to form the diameter of the inner one of the regions to be at least equal to the outer diameter of the projection plus twice the radial thickness of the locking element since Applicant has not disclosed that doing so is significant and for any particular purpose, and it is clear that Yeoman's device, with its given dimensions or relative dimensions, performs equally as well.

Note that it has generally been recognized that the optimization of proportions in a prior art device is a design consideration within the skill of the art. In re Reese, 290 F.2d 839, 129 USPQ 402 (CCPA 1961).



With respect to claim 13, wherein the locking element is a resilient retaining ring having an inner diameter which, in a relieved state of the retaining ring, is smaller than the outer diameter of the projection of the nipple.

Claims 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klein et al (US 2,848,255).

With respect to claim 8, Klein et al discloses a rapid coupling comprising a sleeve (9/35) having an inner stop and an insertion end; a pipe nipple (1) having an insertion end adapted to be inserted into the sleeve's insertion end and having an outer surface formed with an engagement section (as at 41); a locking element (33) provided in the sleeve at the insertion end of the sleeve, the locking element, upon engagement with the engagement section, retaining the nipple in the sleeve to constitute a coupled state of the coupling; a compression spring (21) disposed between the inner stop of the sleeve and the insertion end of the nipple. It is unclear whether the position of the locking element and the engagement section and the strength of the compression spring are such that in an uncoupled state of the coupling, the compression spring pushes the nipple out of the sleeve to such an extent that the engagement section is outside the sleeve. Such is dependent upon such parameters as the elastic force of the compression spring, the weight of the pipe nipple, the frictional force between the pipe nipple and socket, weight of the seat, frictional force between the seat and socket, etc. Accordingly, it would have been an obvious matter of engineering skill and design to form the coupling such that the position of the locking element and the engagement

section and the strength of the compression spring are such that in an uncoupled state of the coupling, the compression spring pushes the nipple out of the sleeve to such an extent that the engagement section is outside the sleeve in order to for example, facilitate disassembly.

Note that it has generally been recognized that the optimization of proportions in a prior art device is a design consideration within the skill of the art. In re Reese, 290 F.2d 839, 129 USPQ 402 (CCPA 1961).

Furthermore, the applicant has failed to demonstrate criticality by any showing of unexpected result derived from forming the coupling such that the position of the locking element and the engagement section and the strength of the compression spring are such that compression spring pushes the nipple out of the sleeve to such an extent that the engagement section is outside the sleeve. Wherein a specific limitation has no criticality, case law can be relied upon as the sole rationale in an obviousness rejection. See MPEP 2144.04. Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to form Yeoman's coupling such that the position of the locking element and the engagement section and the strength of the compression spring are such that in an uncoupled state of the coupling, the compression spring pushes the nipple out of the sleeve to such an extent that the engagement section is outside the sleeve and further since the limitation has no criticality and has thus been established by the case law cited above to be an obvious design consideration within the skill of the art. "[T]he results of ordinary innovation are not the subject of exclusive rights under the patent laws. Were it otherwise patents

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might stifle, rather than promote, the progress of useful arts. See U.S. Const., Art. I, section 8, cl.8.” In re KSR International Co. v. Teleflex Inc., 82 USPQ2d 1385 (U.S. 2007).

With respect to claim 9, wherein the engagement section of the nipple is formed as a groove, and a recess (of 35) is provided in the sleeve, the recess having three successive regions with diameters decreasing in an axial direction toward the insertion end of the sleeve. It is unclear as to whether the diameter of an inner one of the regions being at least equal to the outer diameter of the nipple plus twice the radial thickness of the locking element, and the diameter of a center region corresponding to the diameter of the groove plus twice the radial thickness of the locking element. Nevertheless, it would have been an obvious matter of design choice to form the diameter of an inner one of the regions to be at least equal to the outer diameter of the nipple plus twice the radial thickness of the locking element, and the diameter of a center region corresponding to the diameter of the groove plus twice the radial thickness of the locking element since Applicant has not disclosed that doing so is significant and for any particular purpose, and it is clear that Klein et al's device, with its given dimensions or relative dimensions, performs equally as well.

Note that it has generally been recognized that the optimization of proportions in a prior art device is a design consideration within the skill of the art. In re Reese, 290 F.2d 839, 129 USPQ 402 (CCPA 1961).

With respect to claim 10, wherein the diameter of an outer one of the regions of the recess is larger than the outer diameter of the nipple to leave a gap between the nipple and the sleeve for an unlocking tool to be inserted. Refer to FIG. 4.

With respect to claim 11, wherein the locking element is a resilient retaining ring having an inner diameter which, in a relieved state of the retaining ring, is smaller than the outer diameter of the nipple.

### ***Response to Arguments***

Applicant's arguments filed 2/1/08 have been fully considered but they are not persuasive.

Applicant argues "In Yeoman, the spring 86 determines the differential pressure which is needed to move the flow control member 14 away from the seat 20. To design this spring so as to push the nipple out may create a pressure differential which is unacceptable to control the valve. The spring in the present device is for urging the nipple out and it is not designed for flow differential respect to a valve seat. This proposition of the adaptation of Yeoman is the reconstruction of Yeoman to meet the present claim in hindsight instead of a logical extension." In response, the Supreme Court's *KSR* decision stated that when formulating an obviousness rejection, an examiner should expect that a person of ordinary skill in the art will exercise ordinary creativity, common sense and logic. In the instant case, it would have been within the purview of the skilled artisan to design Yeoman's coupling such that upon optimizing the position of the locking element and the engagement section and the strength of the

compression spring such that in an uncoupled state of the coupling, the compression spring pushes the nipple out of the sleeve to such an extent that the engagement section is outside the sleeve, the integrity of the device is maintained.

Applicant argues "In Klein, the purpose of spring 21 is to keep the seat 15 on the head 3. In the embodiment of Figure 5, the spring 21 is even removed and the seat 15 is increased in length. As indicated in the Paragraph in Column 2 beginning on Line 42, the dimension of the spring 21, the bushing 35, the collar 7, ring 33 and the juncture 41 are such that the spring 21 is not under compression until the head 3 is substantially inserted within the recessed 39. The spring 21 is designed to maintain a seal not to push the head 3 out of the body. Thus one cannot surmise that the small amount of compression shown in Figure 3 is sufficient to move the juncture 41 exterior through the body 9. The nonlocking connection shown in Figure 3 is the problem that the present application is addressing. This is not a locked position as shown in Figure 4." In response, the Supreme Court's *KSR* decision stated that when formulating an obviousness rejection, an examiner should expect that a person of ordinary skill in the art will exercise ordinary creativity, common sense and logic. In the instant case, it would have been within the purview of the skilled artisan to design Klein's coupling such that upon optimizing the position of the locking element and the engagement section and the strength of the compression spring such that in an uncoupled state of the coupling, the compression spring pushes the nipple out of the sleeve to such an extent that the engagement section is outside the sleeve, the integrity of the device is maintained.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES M. HEWITT whose telephone number is (571)272-7084.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Stodola can be reached on 571-272-7087. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/James M Hewitt/  
Primary Examiner, Art Unit 3679